

Claims

1. Device (3; 55) for coupling an optical system to an image processing system, characterised in that the image processing system comprises a videophone (2) and in that
5 the device (3; 55) is equipped such that an image to be generated by the optical system (1) can be recorded by a camera of the videophone (2).
2. Device (3; 55) according to claim 1, characterised in that the videophone (2) is a
10 mobile telephone (2).
3. Device (3; 55) according to claim 1, characterised in that the camera is integrated in a
housing (22) of the videophone (2).
4. Device (3; 55) according to one of the preceding claims, characterised in that the
15 device (3; 55) comprises a receptacle (16) for positioning and clamping the videophone (2).
5. Device (3; 55) according to one of the preceding claims, characterised in that the
device (3; 55) comprises attachment means (13) for attaching the image end of the optical
system (1) to the device (3; 55).
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6. Device (3; 55) according to claim 5, characterised in that the attachment means (13)
are equipped such that the optical system (1) can be attached such that it can be turned
relative to the videophone (2).
- 25 7. Device (3; 55) according to one of the preceding claims, characterised in that the
device (3; 55) comprises at least one focusing device for optically matching the optical
system image to the camera of the videophone (2).
8. Device (3; 55) according to one of claims 1-6, characterised in that the device (3; 55)
30 comprises at least one first spacer ring (41) for determining the distance between the
optical system (1) and the camera of the videophone (2) such that the image to be generated
by the optical system (1) is displayed sharply on the camera.

9. Device (3; 55) according to any of the preceding claims, wherein the optical system is an endoscope (1).

10. System comprising an optical system (1), a videophone (2) and an adapter (3; 55) arranged to couple said optical system (1) to said videophone (2) in such a way that an image to be generated by the optical system (1) can be observed and recorded by a camera of said videophone (2).

11. System according to claim 10, comprising a zoom adapter that changes image size for enlarging/reducing the image.

12. System according to one of claims 10 or 11, comprising a filter arranged to shift the wavelength of radiation forming the image.

13. System according to one of claims 10-12, arranged such that it can be safely used in potentially explosive atmospheres.

14. System according to one of claims 10-13, wherein said adapter (3; 55) is arranged to removably couple said optical system (1) to said videophone (2).

15. System according to one of claims 10-14, wherein said system further comprises an interchangeable objective (54) and an illumination system (66) arranged to illuminate a range of said objective (54).

16. System according to one of claims 10-15, wherein said system comprises a second spacer ring (58) arranged onto said objective (54) so that the objective (54) can be directly placed onto an object to be imaged.

17. System according to one of claims 15-16, wherein said objective (54) comprises a substantially transparent line or grid plate for measurement of distances in a generated image.

18. System according to one of claims 15-17, wherein said illumination system (66) is arranged ring-shaped around an opening of said objective (54).

19. Method for providing, remote from an object, an image of a part of the object,
5 comprising:

- coupling an optical system to a videophone provided with a camera;
- recording an image of the part using the optical system and the videophone, and
- transmitting the recorded image using the videophone.

10 20. Method according to claim 19, wherein said optical system comprises an endoscope and said method comprises:

- inserting an end of the endoscope intended for this purpose into the object.
